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IN THE

Supreme Court of the United States

OCTOBER TERM, 1964

No. 1180

SERVO CORPORATION OF AMERICA,

Petitioner,

vs.

GENERAL ELECTRIC COMPANY,

Respondent.

PETITIONER'S REPLY BRIEF

Statement

The respondent's memorandum in opposition to the Petition for Certiorari states, but fails to demonstrate, that no unusual question of law is involved in the instant petition. It is readily apparent that the question involved in this petition is, what is the standard of invention under Sec. 103 of the Patent Act of 1952? This question has never been passed upon by this Court. That it is a sufficiently significant public question is inherent in this Court's grant of the Petitions for Certiorari in the *Graham* (No. 11) and *Calmar* (No. 37) cases.

A studied consideration of the Petition for Rehearing in this case (Volume XIII, pp. 90-142; A80-A95), the Petition for Certiorari and the respondent's opposition brief strikingly establishes the latter's

failure to rebut the petitioner's plain demonstration that:

1. The technological nature of the claimed invention in this case, its recognition as "one of the most outstanding advances in railroading" and its relationship to the entry of a small business into the stream of industrial activity make the issues in this case particularly apposite to the Supreme Court's consideration at this time of the question of the applicable standard of invention required to warrant patent protection within the meaning of the Constitution and Section 103 of the Patent Act of 1952;

2. The statement of facts in the Court of Appeals' opinion below was directly contrary to the specific evidentiary findings of both a Master and the District Court,* which contrary statement furnished an apparent basis for the Court's subjective evaluation of the claimed invention as an advance in the art, a *modus* of review which has given rise to the diversity of view in patent cases in the lower courts, necessitating an examination by this Court not only of the question of invention but also of the question of the *application* of the standard of invention.

3. On the facts as found in the *nisi prius* tribunals below the claimed invention presents for the consideration of this Court the upper end of the spectrum of technological contributions which runs from the "gadget type" contribution, through moderate contributions representative of

* And as demonstrated in the Petition for Rehearing, unexplainedly contrary to the great weight of evidence in the 6,541 pages of the record below.

> the increased skills of technicians and workers, to basic contributions, at a time when the pronouncement of this Court on the question of invention, if it is to have a real, lasting and uniform effect, should be based upon an examination of claimed inventions which truly represent the entire spectrum of contributions;

and hence presents a factual posture, not already existing in the *Graham* and *Calmar* cases, which would afford this Court an opportunity to consider the question of invention *and* its judicial application in a broader perspective than that now afforded by the pending cases.

The Issues Presented Are Particularly Apposite to This Court's Consideration of the Basic Question of Invention Under Sec. 103 of the Patent Act of 1952

The claimed invention was described by the Master below as follows (A56-57):

> "Those who sought to solve the hot box journal problem were faced with many perplexing difficulties * * * it was * * * necessary to take into consideration many factors such as: the type of journal bearings, whether friction or roller, the shape of the journal box, the varying diameter of the wheels, the sway or motion of the train, as well as its speed, the portions of the journal box to be scanned, whether the lid, top, bottom, leading or trailing sides, the heat sources on the train, such as brake shoes, steam hoses, etc., and especially outside disturbing factors, the sun,

clouds, snow, reflections and any unfavorable background."*

* * * *

"In experimentations in the hot box field it was early discovered that due to the tendency of the bolometer [infra red heat sensing element] to pass through to the amplifier false signals (those not emanating from journal boxes) it was necessary to build into the scanner some reference background that the bolometer would be looking at when not viewing journal boxes. Shutters were tried and attempts were made to so synchronize the shutter blades, with reference to passing journal boxes, as not to allow the bolometer to see anything but the back of the turning blades except when a journal box came in view. Due to the varying speeds of trains and the synchronizing problems, shuttering proved impracticable. Servo discovered another way to eliminate this most troublesome of all scanning problems. The underside of the car Servo found to be under all conditions, winter or summer, day or night, near ambient temperature, thus furnishing a much sought and desirable reference background and, for the first time, so mounted its

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* Respondent's brief at pp. 7-8, while understandably negative, apparently cannot avoid some recognition of the technical problems which the respondent's expert infra red engineers described as not admitting of "very satisfactory solutions" (A101) and as a problem of a "large order" (A101). The Office of Naval Research (1959) has stated that "In order to design or evaluate a given infrared system it is necessary to know the characteristics of potential targets and backgrounds" and even given this information "Since there are many possible types of backgrounds and, many conditions of viewing it, it would be extremely difficult to use such methods to evaluate an infrared system even if this information were collected" (A95).

scanning device as to take full advantage of this discovery.

"I find from the evidence before me that Servo made a true break through in the hot journal box detection field and that there is novelty, utility and unobviousness in the discovery."

The respondent's reply brief appears to us to involuntarily stamp this contribution, and the decision below, as significantly pertinent to the dominant legal and public issue in the field of patents today, namely, the nature of the advance or contribution required to constitute an "invention" realistically promoting the progress of science within the meaning of Sec. 8, Article I of the Constitution.

The present posture of this problem as it has evolved from the adoption of the Constitution through a series of judicial decisions and legislative enactments, all at different mileposts in the progressive road to our present day technological and economic society, has been set forth by Judge Learned Hand in *Lyon* v. *Bausch & Lomb Optical Co.*, 224 F. 2d 530, 535-6 (C.A. 2, 1955).* He concludes that the Congressional intent in writing into the patent statutes the test that the standard of invention has been met when the advance was one which would not have been "obvious * * * to a person having ordinary skill in the art" restored the rule of *Hotchkiss* v. *Greenwood,* 11 How. 248 (U.S. 1850). He then finds (p. 535), where competent workers in the field had for ten years been seeking a solution; where there had been a number of attempts, none satisfactory; where

* Reprinted for convenience in Appendix to this Reply Brief, page i.

nothing in the implementary arts were lacking to put the advance into operation; and when the subject of the invention was disclosed, it supplanted the existing practice and occupied substantially the whole field, that such a combination of evidence completely demonstrated that the contribution had not been "obvious" to a person having ordinary skill in the art within the meaning of the intent of Congress in enacting Section 103 of the Patent Act of 1952.

That petitioner's claimed invention overwhelmingly meets this test can hardly be questioned.*

The respondent's brief itself appears to us to grudgingly admit that the subject matter of the patent in suit was "the first infra red hot-box detector to achieve commercial acceptance" (p. 2); it admits that heat sensing elements capable of being embodied in such detector were "commercially available about 1950" (p. 2); it admits that the detector which is the subject matter of the claimed invention avoids the problems identified by the Master above (p. 8); it admits that the historic facts suggest "the possibility that something inventive was done sometime by someone in the field of hot-box detection" (p. 15) (apparently overlooking its earlier concession that the subject matter of the patent in suit *was the first* infra red hot-box detector to achieve commercial acceptance and the findings of the Master that the invention of the patent in suit constituted a "breakthrough in the hot journal box detection field" (A57) and (A37) was the "first working answer" to the problem); and finally, it admits the "inability" of the General Electric Company

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* See Petition for Certiorari herein, pp. 2-4, 22-25.

"to choose a suitable mounting position" and its deferment of work on the project until the appearance of petitioner's device on the market (p. 16).

There can be little doubt in these circumstances that the claimed invention of the patent in suit more than meets the test of invention established by Congress in the Patent Act of 1952 and that the Court of Appeals in holding simply that the patent did not meet the legal standard required by *Great Atlantic & Pacific Tea Co.* v. *Supermarket Equipment Corp.*, 340 U. S. 147 (1950), not only rejected the standard intended to be set by Congress in its enactment of Section 103 but also erroneously applied the decision of the *A & P* case to a set of facts and a technological contribution far removed from that which may reasonably have prompted the decision in that case.

The significant factor on this Petition for Certiorari with respect to the claimed invention of the patent in suit is that, if it was considered by the Court at the time of the ruling in *Hotchkiss* v. *Greenwood*, at the time of the decision in *Cuno Corp.* v. *Automatic Devices Corp.*, 314 U. S. 84 (1941), at the time of the decision in *Jungersen* v. *Ostby & Barton Co.*, 335 U. S. 560 (1949) or at the time of the ruling in the *Great Atlantic & Pacific Tea Co.* case (1950), we believe the facts are such that it would meet the test of invention applied by those Courts and hence, we suggest to this Court that it presents a particularly pertinent case for review with a view toward the Court bottoming its expected pronouncement of the proper standard of invention upon a sufficiently broad factual and technological basis to assure a real, lasting and uniform effect to its decision on the subject of invention within the meaning of the Constitution.

The Court of Appeals' Error as a Court of Review Is Exemplary of the Reason for the Wide Divergency of View in the Lower Courts on the Question of Invention

In *Lyon* v. *Bausch & Lomb Optical Co., supra,* 536, Judge Learned Hand observed, on the test of obviousness that:

> "* * * this became the standard rubric and was applied in many cases. The variants were numberless and 'invention' became the most baffling concept in the whole catalogue of judicial efforts to provide postulates for indefinitely varying occasions."

The apparent reason for such a condition seems to exist in the judicial tendency to view patent cases differently from other cases where the record facts control the judicial decision. The tendency of the courts to view and evaluate the invention subjectively lies at the root of this problem. Perhaps the sharpest analysis resides in *Armour* v. *Wilson & Co.,* 274 F.2d 143, 156 (C.A. 7, 1960) where that Court sat, in banc, for the specific purpose of resolving the rationale of decision in patent cases and found:

> "After surveying the field since Graver in 1948 and A. & P. in 1950, and observing the variegated colors produced from the seeds we all have widely sown, we have concluded that the rules governing the trial of patent cases are no different than in other types of civil litigation, and further, that the scope of our review on appeal follows the same pattern. We look at the *findings of fact as to in-*

vention in the way that such factual determinations are generally reviewed. We examine the *standard of invention* applied to these facts as a question of law, as we have done in other areas."

The Court of Appeals statement of facts to which it applied the standard of invention in the instant case has been demonstrated beyond the possibility of any reasonable refutation to be directly contrary to the facts as found by two trial tribunals below,* *i.e.* by the Master and the District Judge who both separately and independently found such facts.

These circumstances present for this Court, not only the opportunity to define invention, but the opportunity, at the same time to indicate the proper process of judicial resolution in patent cases to avoid the unstable conditions in applying the test of invention observed upon in the *Lijon* and *Armour* cases.

The Significance of Respondent's Tangential Argument on "Best Mode" and Prior Use

In this case which has been carried to this Court on the basic issue of invention, the respondent nevertheless devotes a substantial portion of its answer to an argument that the patent is invalid because the patentees failed to disclose the best mode by which they contemplated carrying out the invention and, that it is invalid by reason of some asserted prior use. Yet, it concedes that these questions were not passed upon by the Court of Appeals below. It fails, how-

* Petition for Certiorari, A7 to A22; Petition for Rehearing, Vol. XIII, pp. 10-38.

ever, to note that both of these questions were extensively briefed and argued before the Special Master and extensively briefed and argued before the District Court, both of which tribunals decided these questions in favor of the petitioner. If an objective clue is sought among the contrary claims which always exist in an adversary proceeding, we think that the respondent's inapposite reference to these matters suggests an attempt to divert attention from the substantial nature of the question of invention presented by the Petition for Certiorari in this case.

Conclusion

This case involves a predominant legal and public issue in the field of patents relating to the question of invention within the Constitution; it presents facts and a level of scientific accomplishment which do not exist in the cases presently pending before this Court;*

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* See Appendix hereto, p. iii. It is unfortunate, and perhaps it is a significant part of the present problem, that most of the landmark cases passed upon by this Court in the patent field, appear to involve relatively simple subject matter, such as the new door knob of *Hotchkiss*, the method of making jewelry in *Jungersen*, the ~~new grease fitting~~ of *Cuno*, and the supermarket counter of *A&P*. These really represent a negative view, *i.e.*, what *does not* constitute invention. The law with respect to invention, if it is now to be expressed by this Court, would benefit by a contemporary consideration of the subject matter of the patent in suit which we believe, certainly *prima facie*, exhibits a meritorious technical contribution, and hence presents, also *prima facie*, a possible opportunity for an affirmative statement by this Court with respect to what *does* constitute invention.

and it presents, we think, a plainly unjust result. Accordingly, the petition should be granted.

July 16, 1965

Respectfully submitted,

THOMAS F. REDDY, JR.
Attorney for Petitioner
330 Madison Avenue
New York, N. Y. 10017

Of Counsel:

PENNIE, EDMONDS, MORTON, TAYLOR & ADAMS,
New York, N. Y.

B. PURNELL EGGLESTON,
Roanoke, Virginia.

KEITH E. MULLENGER,
ROY C. HOPGOOD,
New York, N. Y.

Certificate of Service

Copies of this Reply brief of Petitioner have been served on Respondents by mailing copies to Leonard G. Muse, Woods, Rogers, Muse & Walker, 105 Franklin Road, S.W., Roanoke, Virginia 24004, and to Charles H. Walker, Fish, Richardson & Neave, 277 Park Ave., New York, N. Y. 10017, this 16th day of July, 1965.

THOMAS F. REDDY, JR.
Attorney for Petitioner

APPENDIX TO REPLY BRIEF

Lyon v. *Bausch & Lomb Optical Co.*, 224 F. 2d 530, 535-536 (C.A. 2, 1955):

"The Courts of Appeal have very generally found in the recent opinions of the Supreme Court a disposition to insist upon a stricter test of invention than it used to apply—indefinite it is true, but indubitably stricter than that defined in § 103. Indeed, some of the justices themselves have taken the same view. The act describes itself as a codification of existing law, as it certainly is in the sense that the structure of the system remains unchanged. Moreover those decisions that have passed upon it have uniformly referred to it as a codification, although so far as we have found none of them has held that § 103 did not change the standard of invention. And so the question arises whether we should construe § 103 as restoring the law to what it was when the Court announced the definition of invention, now expressly embodied in § 103 or whether we should assume that no change whatever was intended. To decide that qeustion it seems desirable to look briefly backward.

"From 1793, when the second patent act was passed, until the Act of 1952, the only statutory standard for invention was that the discovery should be 'new and useful'; and indeed the Act of 1952 itself repeats this same test in § 101. Congress did not try to define it but left it to the courts to develop by precedent. So far as we can find, it was not until 1850 that the Supreme Court made any such attempt; so that, although the disclosure must be 'new,' it was so, provided it had not been published or in public use and

was original. However, in *Hotchkiss* v. *Greenwood,* 11 How. 248, 267, 13 L.Ed. 683, the Court imposed an authoritative gloss upon the word, which it put in the following words: 'unless more ingenuity and skill in applying the old method' were necessary 'than were possessed by the ordinary mechanic acquainted with the business, there was an absence of that degree of skill and ingenuity which constitute essential elements of every inveniton. In other words, the improvement is the work of a skillful mechanic, not that of the inventor.'

* * * *

"Thereafter this became the standard rubric and was applied in many cases. The variants were numberless; and 'invention' became perhaps the most baffling concept in the whole catalogue of judicial efforts to provide postulates for indefintely varying occasions. However, the Court never formally abjured it; nor has it ever substituted any other definite test. Even *Cuno Enginering Corp.* v. *Automatic Devices Corporation,* 314 U.S. 84, 62 S.Ct. 37, 86 L.Ed. 58,—which in expression probably was the furthest departure—recognized the continued authority of *Hotchkiss* v. *Greenwood, supra;* 314 U.S. at page 90, 62 S.Ct. at page 40: 'if an improvement is to obtain the privileged position of a patent more ingenuity must be involved than the work of a mechanic skilled in the art.' Again 314 U.S. at page 91, 62 S.Ct. at page 40: 'The principle of the *Hotchkiss* case applies to the adaptation or combination of old or well known devices for new uses.' "

The Subject Matter of the Patents in Cases Pending Before the United States Supreme Court

Graham v. *John Deere Co.*, No. 11. The patent in suit involves a clamp for shank plows and the standard of invention under Sec. 103.

Calmar, Inc. v. *Cook Chemical Co.*, No. 37. The patent in suit involves a hold-down cap for a liquid sprayer and the standard of invention under Sec. 103.

Haseltine Research Inc. v. *Ladd*, No. 57. The patent involved in this case relates to a microwave switch. The Petition for Certiorari specifically notes that the issues raised on the Petition do not involve an understanding or a consideration of the subject matter of the patent and the standard of invention under Sec. 103 is not involved.

Brenner v. *Manson*, No. 58. The patent in suit or the subject matter of this patent is not disclosed in the Petition for Certiorari; it does not involve the question of the standard of invention under Sec. 103; and the Petition states that the technology involved is irrelevant for the purposes of the Petition.